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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,009

02/02/2006

Magnus Karlsson

20459-00395-US1

3321

30678

7590

05/27/2008

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EXAMINER

BEACH, THOMAS A

ART UNIT

PAPER NUMBER

3671

MAIL DATE

DELIVERY MODE

05/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,009	Applicant(s) KARLSSON ET AL.	
	Examiner THOMAS A. BEACH	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "9" has been used to designate both contact zones in figure 12 and 9a and 9b are not shown in any of the figures. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1 and 15 is objected to because of the following informalities: on lines 17 & 19 and 21 & 23, 24 &, "at least one pair of front and rear contact zones" and "contact zones" are claimed several times but it is unclear if there are two separate sets of these zones or if they are the same (suggested to distinguish them by first pair of front and second pair of front, etc.) and which set is being referred to since "the contact zone" is used repeatedly. Also, on line 42 of claim 1, "the collars" lack antecedent basis and on

line 5 of claim 15, "the collateral joints" lack antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 9, 10 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hahn et al 3,919,792. Hahn shows wearing parts system for a tool of an earth moving machine of the type which comprises a holder part (15), attached to the tool and comprising a holder beak (22), and a wearing and/or replacement part (16/18), arranged at this holder beak and comprising a hollow (21), which is designed to grip the holder beak and is fixed thereto by means of a locking mechanism (19) through the holder part and the wearing and/or replacement part, the holder beak and the hollow (21) having a plurality of contact zones (unnumbered faces of 22 in figures 3-4), each comprising at least two mutually interacting contact faces, one or more configured to interact with one another after a certain predetermined wear, which contact faces are disposed one on the holder part and one on the wearing and/or replacement part (16/18) and are intended to absorb forces, of which contact zones, at least one pair of the front contact zones (23 figure 3) is disposed on either side of the longitudinal line of symmetry of the wearing parts system (22 in figure 4), whilst at least one pair of rear

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contact zones (24 figure 3) forms a certain defined angle with and on either side of the said the longitudinal line of symmetry; at least one pair of the front and rear contact zones (22 in figure 4) is disposed laterally offset in pairs and on either side of the line of the longitudinal line of symmetry; and the contact zones further comprising at least one front contact zone and such that at least two of the rear contact zones comprise interacting joints (41/40) with common rotational axis which joints each comprising a recess (41/43) and a projection (40) each comprising a respective contact face, disposed one on each of the holder part (42) perpendicular to the axis of the locking device comprise a respective end face, which faces are designed to interact so as to limit the pushing on of the wearing and/or replacement part over the holder part and, on the other hand, to ensure that the contact between the contact faces will be made, primarily, at the common centre M of the said end faces and secondarily, as the wear has progressed, about this mid contact point M as an increasingly large contact zone, and the distance between the end faces of the collateral joints at their common centre M0 is equal to zero (41) or substantially less than between collar end faces (46) of the wearing and/or replacement part and the holder part (figs 1, 5 & 9).

As concern claim 2, Hahn shows the locking mechanism (19) comprises at least one locking device, placed through interacting openings through the holder part and the wearing and/or replacement part, and that the locking device (19) and the openings in the wearing and/or replacement part and the holder part are divided into at least three different sections, in the longitudinal direction of the openings, in which the section of the locking device opening which appears first in the direction of fitting of the locking

device (19) has the widest cross section, whilst the third section of the locking device opening which appears last in the direction of fitting of the locking device has the smallest cross-sectional section and the first introduced, third section of the locking device has the smallest cross-sectional section, whilst the second locking device section in the direction of fitting has a somewhat larger cross section than the first introduced, third section of the locking device, but, at the same time, somewhat introduced, first section of the locking device has the widest cross section of the locking device.

As concern claim 9, Hahn shows a cross section through the body of the fitted locking device level with the inner side of the roof of the hood consists of a homogeneous, solid, unbroken cross section or a cross section which is unbroken to the extent of at least 50% or more (figs 5 & 9).

As concern claim 10, Hahn shows a leverage ratio from the line of symmetry to the contact point M between the hood of the tine part and the holder part is equal to zero or less than the radius R_z of the projection (figs 5 & 9).

As concern claim 12, Hahn shows the radius R_1 for a respective recess is larger than the radius R_2 for a corresponding projection (fig 9).

As concern claim 13, Hahn shows at least two rear contact zones are provided, which comprise a greater angle of inclination to the line of symmetry of an inner, longitudinal peripheral line P_i along the locking device opening through the beak than of an outer, collateral longitudinal peripheral line (fig 1, 5, & 9).

As concern claim 14, Hahn shows the various contact faces and roundings, several being comprise a plurality of different inclinations, conicities parallel but laterally offset (fig 1, 5 & 9).

As concern claim 15, Hahn shows torque loads caused by the rotation of the wearing and/or replacement part in relation to the holder part are designed to be absorbed directly or after a certain minor wear by at least one of the front contact zones in interaction with at least the said contact zones on the rear collateral joints (fig 5 & 9).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al 3,919,792 in view of Ratkowski 3,196,956.

As concern claim 3, Hahn shows the locking device (19) is of the type which comprises a rigid locking device body (19), but lacks the details further of the type of locking device. However, Ratkowski shows a similar wearing parts system for a tool of an earth moving machine of the type which comprises a holder part (70), attached to the tool and comprising a holder beak (60), and a wearing and/or replacement part (31), arranged at this holder beak and comprising a hollow having an elastic material inlaid

into the locking device body, which material loads at least one movable engagement part toward a predetermined position (fig 6).

As concern claim 4, Ratkowski shows the locking device (97) comprises at least two movable engagement parts (97, 98) loaded by elastic material (99), which engagement parts are constituted by a securing plate for detachable blocking of the locking device in a predetermined locking position, and a compression plate, which, via its elastic material, is designed to load the contact zones of the wearing and/or replacement part and of the holder part one against the other.

As concern claim 5, Ratkowski shows in that the locking device (97) comprises a hollow (area between 98 & 97 in fig 6) for the elastic material (99), which hollow has a first gap opening intended for the expansion of the elastic material when this is subjected to load during the removal of the locking device, and, in addition thereto, one or more further gap openings (both ends of opening) through which the particular engagement parts, in a state which for the locking device, is free from external loads, project a certain way beyond the body of the locking device.

As concern claim 6, Ratkowski shows that the locking device opening through the beak of the holder part comprises a first portion in the direction of fitting which is at least wider in a first direction than a corresponding portion of the body of the fitted locking device (97), which portion of the locking device opening comprises a first segment and a second segment, which first segment, which is wider than the corresponding locking device body in the said first direction, is designed to constitute a cavity intended for securing plate in its extended position blocking the locking device,

whilst the second segment is designed to constitute, or form, a space intended for the expansion of the elastically deformable resilient material when this is subjected to load during the removal of the locking device.

As concern claim 7, Ratkowski shows that connecting to the locking device opening through the hood of the tine part there is a pin disposed on the inner side of the roof of the hood, against which pin the securing plate of the locking device shall fix (fig 7 & 8).

As concern claim 8, the combination shows a bevel, which widens downward in the direction of fitting of the locking device, is disposed on that side of the locking device body facing toward the said pin, so that the locking device body and the pin are free from contact with each other (Hahn, fig 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hahn, as taught by Ratkowski, to include this specific locking device for the expected result of an improved locking device that will remain in place during use, thus improving the up time and ease of changing parts of the wear system.

Response to Arguments

6. Applicant's arguments filed 01/30/08 have been fully considered but they are not persuasive.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Beach whose telephone number is 571.272.6988. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571.272.6998. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas A. Beach

/Thomas A Beach/
Primary Examiner, Art Unit 3671

May 28, 2008

THOMAS A. BEACH
Primary Examiner
Group 3600